

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

## (PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notificati Preliminary E	on of Transmittal of International Examination Report (Form PCT/IPEA/416)			
F-9737-PCT International application No.	International filing date (day/mo	nth/year)	Priority date (day/month/year)			
PCT/US03/29981	25 September 2003 (25.09.2003	)	27 September 2002 (27.09.2002)			
International Patent Classification (IPC)	or national classification and IPC					
IPC(7): G01V 3/12; G01S 13/52 and US	S Cl.: 342/22, 192, 127; 324/642,	637, 329, 337;	367/100			
Applicant			ì			
CLOUTIER, PAUL A						
Examining Authority and	nary examination report has be is transmitted to the applicant	according to A	rticle 36.			
2. This REPORT consists of	a total of $\stackrel{{\cal L}}{=}$ sheets, including	this cover she	eet.			
which have been amo	This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).					
These annexes consist of						
3. This report contains indic	ations relating to the following	items:				
I Basis of the rep	port					
II Priority						
III Non-establishm	nent of report with regard to no	velty, inventiv	ve step and industrial applicability			
IV Lack of unity of	·					
V Reasoned state	ment under Article 35(2) with	regard to nove	lty, inventive step or industrial			
applicability; citations and explanations supporting such statement						
VI Certain documents cited						
VII Certain defects in the international application						
VIII Certain observ	ations on the international appl	ication				
Date of submission of the demand	Dat	e of completion	n of this report			
19 March 2004 (19.03.2004)	14 1	January 2005 (14	4.01.2005)			
Name and mailing address of the IPEA Mail Stop PCT, Atm: IPEA/US	/US Aut	horized officer	•			
Commissioner for Patents	Ka	mini S Shah				
P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Tel	ephone No. 703	3-305-3900			

Form PCT/IPEA/409 (cover sheet)(July 1998)

## INTERNATIONAL PRELIM Y EXAMINATION REPORT

International arguetion No. PCT/US03/29
PC17US03/295

I.	Basis of the report
1.	With regard to the elements of the international application:*
	the international application as originally filed.
	the description:
	pages 1-25 as originally filed
	pages NONE, filed with the demand pages NONE, filed with the letter of
	the claims:
	pages 26-33 , as originally filed
	pages NONE, as amended (together with any statement) under Article 19
	pages NONE , filed with the demand
	pages NONE , filed with the letter of
	the drawings:
	pages 1-12 , as originally filed
	pages NONE, filed with the demand pages NONE, filed with the letter of
	the sequence listing part of the description: pages NONE , as originally filed
	pages NONE , filed with the demand
	pages NONE , filed with the letter of
2.	With regard to the language, all the elements marked above were available or furnished to this Authority in the
	language in which the international application was filed, unless otherwise indicated under this item.  These elements were available or furnished to this Authority in the following language which is:
	the language of a translation furnished for the purposes of international search (under Rule23.1(b)).
	the language of publication of the international application (under Rule 48.3(b)).
	the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).
3	With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the
٥.	international preliminary examination was carried out on the basis of the sequence listing:
	contained in the international application in printed form.
	filed together with the international application in computer readable form.
	furnished subsequently to this Authority in written form.
	furnished subsequently to this Authority in computer readable form.
	The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the
	international application as filed has been furnished.
	The statement that the information recorded in computer readable form is identical to the written sequence listing
	has been furnished.
4.	The amendments have resulted in the cancellation of:
	the description, pages none
	the claims, Nos. none
	the drawings, sheets/ <del>fig</del> none
5.	
J.	This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**
	Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in
thi	s report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17). Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.
	ль, горосстот эпосо сотишть заст инспитения тих ие гејетей и иниет нет 1 ини инпехей и тих герогі.



Form PCT/IPEA/409 (Box V) (July 1998)

International apply on No. PCT/US03/2998

Claims Claims Article 33(2 est phase of eiver.	NONE  1-26  NONE  1-26  NONE  1-(3), because the "P" documen reflected radiation by the first r	NO YES NO YES NO NO
Claims Claims Claims Claims Claims Article 33(2) gest phase of eiver.	NONE  1-26  NONE  1-26  NONE  1-(3), because the "P" documen reflected radiation by the first r	NO YES NO YES NO  TO At US 6,587,072 as cited in the receiver is in quadrature with the
Claims Claims Claims Claims Article 33(2) est phase of eiver.	1-26 NONE  1-26 NONE  )-(3), because the "P" documen reflected radiation by the first r	YES NO YES NO  YES NO  t US 6,587,072 as cited in the ecceiver is in quadrature with the
Claims Claims Claims Article 33(2) test phase of eiver.	NONE  1-26  NONE  )-(3), because the "P" documen reflected radiation by the first r	NO YES NO  tt US 6,587,072 as cited in the ecceiver is in quadrature with the
Claims Claims Claims Article 33(2) test phase of eiver.	NONE  1-26  NONE  )-(3), because the "P" documen reflected radiation by the first r	NO YES NO at US 6,587,072 as cited in the ecciver is in quadrature with the
Article 33(2) est phase of eiver.	NONE  )-(3), because the "P" documen reflected radiation by the first r	NO  t US 6,587,072 as cited in the ecceiver is in quadrature with the
Article 33(2) est phase of eiver.	NONE  )-(3), because the "P" documen reflected radiation by the first r	NO  t US 6,587,072 as cited in the ecceiver is in quadrature with the
est phase of eiver. 3(4), and thu	reflected radiation by the first r	eceiver is in quadrature with the